# Spirometry testing (Reversibility testing)

**Information and advice for patients**

## *Community Respiratory Servive*

### What is spirometry testing?

Spirometry is a breathing test that can help to diagnose and monitor lung conditions such as asthma and chronic obstructive pulmonary disease (COPD). The test is carried out using a machine called a spirometer which measures how well your lungs work.

Reversibility testing involves performing spirometry before and after you have taken medication and is sometimes done to investigate a diagnosis of asthma, or when diagnosis is not clear.

### What are the benefits of the test?

The benefit of the test is that it can help to diagnose or monitor your lung condition so that you can be given the right treatment. It also helps us to see whether your lung function improves with medication or not.

### What are the risks of the test?

Occasionally people feel dizzy during the test or faint; if you feel dizzy or faint please stop and tell the person doing the test.

In addition to this, blowing out hard can increase the pressure in your chest, abdomen (tummy), eyes and ears which could cause complications so you may be advised not to have spirometry if you have recently had any of the following:

- Unstable angina
- Heart attack
- Stroke
- Uncontrolled high blood pressure
- Blood clot in your lung
- Pneumothorax (burst lung)
- Aneurysm
- Surgery to the chest or abdomen
- Eye surgery
- A burst ear drum
- Coughing up any blood of unknown cause

If you have any questions or concerns about any of these, please contact the Community Respiratory Service or your doctor.

### What are the risks of not having the test?

If you don't have this test we won't know how well your lungs are working so you may not get an accurate diagnosis or the most appropriate treatment for your condition.

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### Are there any alternatives to this test?

There are no alternative investigations that measure the same thing.

### Preparing for the test

Please stop taking the following medication for the following time periods before your test unless you need to use them because your symptoms are worsening:

| Medication Type | Drug Name | Brand Name |
|---|---|---|
| ***For 4-8 hours before*** | | |
| Inhaler or nebuliser | Salbutamol | Ventolin, Salamol, Asamol clickhaler, Salbumin, Airomir, Combivent |
| Inhaler | Terbutaline | Bricanyl |
| ***For 6 hours before*** | | |
| Inhaler or nebuliser | Ipratropium bromide | Atrovent |
| ***For 24 hours before*** | | |
| Inhaler | Salmeterol | Seretide, serevent |
| Inhaler | Fometerol | Symbicort, Oxis, Fostair, Foradil, Atimos Modulite |
| Tablet | Theophylline | Slo-phylline, Uniphylline Continus, Nuelin SA |
| Tablet | Aminophylline | Phyllocontin continus |
| Tablet or syrup | Salbutamol | Ventolin, ventmax |
| ***For 24-36 hours*** | | |
| Inhaler | Tiotropium | Spiriva |

- × Please try and refrain from smoking 24 hours before the test
- × Avoid eating a large meal for 2 hours before the test
- × Avoid vigorous exercise for 30 minutes before the test
- × Avoid alcohol on the day before the test

- ✓ Bring your inhalers (plus any spacer device)
- ✓ Wear loose fitting clothing
- ✓ Telephone the Community Respiratory Service for advice if you have had antibiotics or steroids in the last 6 weeks

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### During the test

The appointment will take up to 1 ½ hours; this includes the time for the medication to work and the time to do the test.

We will begin by measuring your height and weight and asking your ethnicity as these details need to be recorded in the spirometer to generate results. This is what happens:

1. You will be asked to take a deep breath in and then seal your lips around the spirometer mouthpiece and a nose clip will be placed on your nose.
2. You will be asked to blow out slowly as far as you can; this may take several seconds.
3. This will be repeated a few times so we can check the readings are the same each time.
4. You will then be asked to take a deep breath in, seal your lips around the spirometer mouthpiece and breathe out as fast and hard as you can until it feels like your lungs are empty; this may take several seconds.
5. You will be asked to repeat this a few times so we can check the readings are the same each time.
6. We will then ask you to use an inhaler or nebuliser, and wait for approximately 20minutes for this to work; this is to help your airways to be as wide open as possible.
7. The test will then be repeated so we can see any effect the medication has on your lungs.

### After the test

You can go home and return to your normal activities after the test. Some people find it hard work to do the test, so you may feel tired.

### Results

The results of the spirometry will be sent to the person who referred you for the test and they will contact you to discuss the results.

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## *Community Respiratory Servive*

### Contact details

**Community Respiratory Service**
0121 612 2007
Monday – Friday, 9am – 8pm
Saturday – Sunday, 8.30am – 4.30pm

### Further information

For more information about our hospitals and services please see our website:

**Sandwell and West Birmingham Hospitals NHS Trust**
*www.swbh.nhs.uk*

### Sources used for the information in this leaflet


- National Institute for Health and Clinical Excellence, CG101 'Chronic obstructive pulmonary disease: Management of chronic obstructive pulmonary disease in adults in primary and secondary care', June 2010
- British Thoracic Society and Scottish Intercollegiate Guidelines Network, 'British Guideline on the Management of Asthma', May 2008, revised January 2012


If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5420 or email: **swb-tr.swbh-gm-patient-information@nhs.net**



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